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Commands of MAC Address Management-1



CONTENTS



Chapter 1	Commands of MAC Address Management	1
1.1	clear mac-address-table	1
1.2	mac-address-table aging-time	1
1.3	search mac-address	2
1.4	show mac aging-time	3
1.5	show mac-address-table 12-address	3
1.6	show mac-address-table 12-address count	4
1.7	show mac-address-table static	5
1.8	show mac-address-table multicast	6

Chapter 1 Commands of MAC Address Management

1.1 clear mac-address-table

[Function]

Clear the specified MAC address in MAC address table.

[Command Format]

clear mac-address-table {all | dynamic | static} [schedule-list list-no]

[Parameter]

all: Clear dynamic/static MAC address.

dynamic: Clear dynamic MAC address only.

static: Clear dynamic static MAC address only.

schedule-list: Set the starting time, ending time and periodical operation time.

list-no: specify the certain schedule list <0-99>.

[Command Modes]

Global configuration mode

[Example]

Delete all dynamic MAC addresses:

Raisecom(config)#clear mac-address-table dynamic

[Related commands]

Commands	Description
mac-address-table static	Configure static MAC-address .

1.2 mac-address-table aging-time

[Function]

Set aging time of MAC address,use **no**command to recover to default configuration.

[Command Format]

mac-address-table aging-time {0 | time} [schedule-list list-no]

no mac-address-table aging-time [schedule-list list-no]

[Parameter]

aging-time:aging time;

0: MAC address aging disable;

time: aging time, unit is second, range from 3-765;
schedule-list: set the starting time, ending time, time interval of periodical task.
list-no: range from <0-99>.

[Default]

Aging time is 300 second.

[Command Modes]

Global configuration mode

[Explanation of command execution echo]

Set successfully
Set unsuccessfully!

[Example]

Set aging time of MAC address is 500 seconds:
 Raisecom(config)# **mac-address-table aging-time 500**
 Set MAC address aging disable:
 Raisecom(config)# **mac-address-table aging-time 0**
 Recover default value of MAC address aging time:
 Raisecom(config)# **no mac-address-table aging-time**

[Related commands]

Commands	Description
show mac aging-time	Show MAC address aging time.

1.3 search mac-address

[Function]

Search a specified MAC address in the MAC address table.

[Command Format]

search mac-address HHHH.HHHH.HHHH

[Parameter]

HHHH.HHHH.HHHH: MAC address, hexiadcimal digit string, dotted for every four characters.

[Command Modes]

Global configuration mode

[Explanation of command execution echo]

If the mac address is finded out, show following information:

MAC address Port number VLAN identifier symbol

[Example]

Search mac address 1234.1234.1234:

Raisecom#**search mac-address** 1234.1234.1234

[Related commands]

Commands	Description
mac-address-table 12-address	Set all MAC addresses or those addresses comply to certain condition in the switch.

1.4 show mac aging-time

[Function]

Show MAC address aging time.

[Command Format]

show mac aging-time

[Parameter]

aging-time: MAC address aging time.

[Command Modes]

Privileged EXEC; privileged user.

[Command Executing Instruction]

Only the privileged user with priority not less than 5 can use this command.

[Explanation of command execution echo]

Aging time: X seconds

Set unsuccessfully !

[Example]

Show current aging time:

Raisecom# **show mac aging-time**

[Related commands]

Commands	Description
mac-address-table aging-time	Set MAC address aging time.
no mac-address-table aging-time	Recover MAC address aging time to default value.

1.5 show mac-address-table 12-address

[Function]

Show all the addresses list in the current MAC address table, including static setting and dynamic MAC address which have not been aged.

[Command Format]

show mac-address-table l2-address

show mac-address-table l2-address vlan *vlan_id*

[Parameter]

vlan: VLAN;

vlan_id: VLAN ID, range from 1-4094.

[Command Modes]

Privileged user

[Explanation of command execution echo]

Show “MAC address, port, VLAN, symbol” and other address item information.

[Example]

Show all the MAC address:

Raisecom#**show mac-address-table l2-address**

Show all the MAC address of physical port 5:

Raisecom#**show mac-address-table l2-address port 5**

Show all the MAC address of vlan 2:

Raisecom#**show mac-address-table l2-address vlan 2**

[Related commands]

Commands	Description
search mac-address <i>HHHH.HHHH.HHHH</i>	Search MAC address state in switch.

1.6 show mac-address-table l2-address count

[Function]

Count MAC address table.

[Command Format]

show mac-address-table l2-address count

show mac-address-table l2-address count vlan *vlan_id*

[Parameter]

count: count the number;

vlan: VLAN;

vlan_id: VLAN ID, range from 1-4094.

[Command Modes]

Privileged user.

[Explanation of command execution echo]

Show the number of related MAC address.

[Example]

Count the number of all the MAC address:

```
Raisecom#show mac-address-table l2-address count
```

Count the number of MAC address for physical port 5:

```
Raisecom#show mac-address-table l2-address count port 5
```

Count the number for all MAC address of VLAN 2:

```
Raisecom#show mac-address-table l2-address count vlan 2
```

[Related commands]

Commands	Description
Search mac-address HHHH.HHHH.HHHH	Search the state of MAC address in the switch.

1.7 show mac-address-table static**[Function]**

Show statid MAC address information.

[Command Format]

```
show mac-address-table static
```

```
show mac-address-table static vlan vlan_id
```

[Parameter]

vlan: VLAN;

vlan_id: VLAN ID, range is 1-4094.

[Command Modes]

privileged user

[Explanation of command execution echo]

Information of static mac address in switch:

```
port No.    VLAN ID    static MAC Addr
```

[Example]

Show static MAC address.

```
Raisecom# show mac-address-table static
```

Show the static MAC address table of physical port 5:

```
Raisecom#show mac-address-table static port 5
```

Show the static MAC address information of vlan 2:

```
Raisecom#show mac-address-table static vlan 2
```

[Related commands]

Commands	Description
mac-address-table static	Set static MAC address.use no to delete.

1.8 show mac-address-table multicast

[Function]

Use the command to show layer 2 multicast entity of switch or referred VLAN.

[Command Format]

show mac-address-table multicast [vlan *vlan-id*] [count]

[Parameter]

count: show all count.

vlan vlanid: VLAN ID (optional), range from 1 to 4094.

[Command Modes]

Privileged EXEC; privileged user

[Command Executing Instruction]

show mac-address-table multicast shows all VLAN layer 2 multicast router information in the switch.

show mac-address-table multicast vlan *vlan-id* shows referred VLAN layer 2 multicast router information in the switch.

show mac-address-table multicast count shows all VLAN layer 2 multicast count information in the switch.

show mac-address-table multicast vlan *vlan-id* count shows referred VLAN layer 2 multicast port count information in the switch.

If VLAN is not referred ,show all VLAN layer 2 multicast router information.

[Example]

Show all VLAN layer 2 multicast router information:

```
Raisecom#show mac-address-table multicast
```

```
Multicast filter mode: Forward-all
```

```
Vlan  Group Address      Ports[Static](Hardware)
```

```
-----
```

```
2      0100.5E08.0808  1-6[1-6](1-6)
```

Show layer 2 multicast router information of VLAN 2:

```
Raisecom#show mac-address-table multicast vlan 2
```

```
Multicast filter mode: Forward-all
```

```
Vlan  Group Address      Ports[Static](Hardware)
```

 2 0100.5E08.0808 1-61-6

Show all VLAN layer 2 multicast router count information:

Raisecom#**show mac-address-table multicast count**

Multicast filter mode: Forward-all

Multicast address entries for all Vlans: 1

Show layer 2 multicast router counter information of VLAN 2:

Raisecom#**show mac-address-table multicast vlan 2 count**

Multicast filter mode: Forward-all

Multicast address entries for all Vlans: 1

[Related commands]

Commands	Description
ip igmp snooping static	Add a layer 2 port as multicast member.



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